Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 23 Number 1 **Fall 2003**

Monthly meetings

Minnesota Valley National Wildlife Refuge
Visitor Center, 3815 East 80th St.
Bloomington, MN 55425-1600
952-854-5900

6:30 p.m. — Building east door opens
6:30 p.m. — Refreshments, information, Room A
7 – 9 p.m — Program, society business
7:30 p.m. — Building door is locked
9:30 p.m. — Building closes

Programs

The MNPS meets the first Thursday in October, November, December, February, March, April, May and June. Check the Web site for more program information.

Nov. 6: "Old Growth Trees, a Seed Source for Reforestation and Propagation," by Lee Frelich, University of Minnesota Department of Forest Resources; **Seed Exchange.**

Dec. 4: "Minnesota Wild Rice," its biology, traditional harvest and cultural significance, by Darren Vogt. He is with the 1854 Authority, which is in charge of wild rice management in the 1854 Ceded Territory, the Arrowhead region of Minnesota. **Plant of the Month:** to be announced.

Feb. 5: "Native Plants of Papua, New Guinea," by George Weiblen, Department of Plant Biology, University of Minnesota.

MNPS Web site

http://www.stolaf.edu/depts/biology/mnps
e-mail: MNPS@HotPOP.com

MNPS Listserve

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Projects are restoring wetlands and prairies

Prairie and wetland restoration projects are underway in many Minnesota locations, but we hear mainly of losses of natural areas. From time to time news of some of the new or successful projects will be included in the Minnesota Plant Press. Is there a project in your area that would interest MNPS members? If there is, contact Gerry Drewry, editor, at 651-463-8006, or gdrewry@infionline.net

Olmsted County
by Joel Dunnette

If you wonder if you can make a difference, I have an example for you. Six years ago, with aid of a DNR Conservation Partners grant, we developed a "local origin" seed production nursery in Chester Woods Park in Olmsted County. It took many hours of effort, many collaborators and volunteers to establish. Now the nursery is mature and producing seed for harvest. The parks department has built their own harvester for seeds of grasses and major forbs. To provide diversity, we still need to hand-harvest many species of forbs. So we have volunteers and parks staff hand-collecting seed each summer and fall.

We had already begun developing a prairie management program with Olmsted County Parks — including prescribed burning and brush cutting. The seed production fits well into this program. To date, Parks has planted more than 30 acres to prairie, adding to the about 100 natural acres. Production is going so well that the county is starting to use the seed for converting lawn areas to prairie around the administration buildings.

We planted a seed of an idea and nurtured it for several years. Now it is growing on its own and bearing fruit.

Dakota County
by Karen Schik

A 50-acre wet meadow and wet prairie restoration will be taking place this fall at the Empire Wastewater Treatment Plant north of Farmington. With a grant from Metropolitan Council, Friends of the Mississippi River and Applied Ecological Services are working on restoring an existing agricultural field to its pre-settlement condition. Located in Empire Township near the Vermillion River, this project

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From the president

Greetings, Minnesota Native Plant Society members! I would like to introduce myself and provide some background regarding my experience with MNPS and my botanical interests. I have been an active member of the Minnesota Native Plant Society since 1999. I came to Minnesota from my native state of New Jersey to pursue a master's degree in 1995. I joined the Minnesota Native Plant Society in 1999 to learn more about the native flora of the state and to meet other native plant enthusiasts. In the fall of 2000, I was appointed to the MNPS board and have been organizing and leading several field trips each year. I am a professional botanist and landscape ecologist and spend much of my time in the field conducting natural resource inventories and rare plant surveys in Minnesota and throughout the midwestern states.

The society is fortunate to have such an enthusiastic and experienced board and a wealth of knowledge among our diverse membership. I hope to increase the exposure of the MNPS among the public, to increase the diversity and size of our membership, and to offer many additional opportunities outside of our monthly meetings to learn about our native flora. I wish that I had learned more about the MNPS when I was in graduate school. For this reason, I want to make a concerted effort to extend a welcome to college students and increase their involvement with the society.

It should be no surprise that I consider our society field trips as one of the best ways to experience and learn about our native flora. I have had the privilege of working closely with board members Doug Mensing, Dan Mielke, and Janet Larson in organizing and leading field trips to some of our favorite natural areas. We intend to continue offering quality field trips. We want you to join us on our tramps and to consider leading a trip to your favorite spot. MNPS member Scott Milburn and I will be co-leading a winter botany field trip at the Minnesota Valley Wildlife Refuge on Nov. 15. Join us in learning more about identifying native plants in winter.

Planning for the March 2004 symposium is underway, and I am excited about the prospects for this annual event. The symposium will focus on the ecology and native plants of woodlands and savannas in Minnesota. We have a great facility lined up and are currently working on identifying speakers and focused topics. I want to encourage all members who are interested in helping with planning the 2004 symposium to contact the planning chairs – Karen Schik, Shirley Mah Kooyman, and myself. We are eager to hear your ideas, and we can always use any help you can give.

Finally, we want to develop new opportunities for MNPS members to get involved with natural resources and native plants throughout the state. I will be working with board members such as Dianne Plunkett Latham and Janet Larson to create a core group of society volunteers. We may adopt a DNR Scientific and Natural Area, or help organizations such as Great River Greening and the Mississippi National River and Recreation Area to restore and manage native plant communities. If you are interested in becoming an active volunteer member, please contact me or other board members.

I consider it an honor and a privilege to serve as the president of our society. I will strive to represent the interests of our board and all of our members, and to continue the excellent work of those who have served before me. I look forward to meeting all of you at our meetings, our symposium, and future field trips.

Jason Husveth, President

MNPS Board of Directors

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Restorations

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will improve water quality and reduce runoff to the river while providing wildlife habitat and connectivity to other natural areas.

Wet meadows are one of the wetland types most likely to be impacted by development projects and least likely to be restored by mitigation projects. Wetland mitigation projects typically create deeper emergent marsh wetlands. Wet meadows have become increasingly rare across the state, so it will be a treat to see a sizable one restored. This project also provides a link in an important greenway corridor across Rosemount that connects the Vermillion River with the Mississippi River. Eventually, the Met Council hopes to make this site available to the public for birding and wildlife viewing.

A 30-acre wet meadow and wet prairie restoration is also underway this fall at Lock and Dam No. 2, in Hastings. Friends of the Mississippi River is working with the City of Hastings to establish native vegetation at a former industrial site that used to be occupied by numerous petroleum tanks. The tanks were removed in 1995, most of the property was donated to the city, and it is now known as Hastings River Flats Park. The city has been working to improve the property and restore its natural features for public enjoyment and education. An interpretive center and other facilities are part of a long-term site plan.

Equal Protection

The MNPS board has endorsed a California NPS campaign for equal protection of plant species under the federal Endangered Species Act. The ESA protects listed animals anywhere they live, but most endangered plant species are protected only on land under federal jurisdiction. The campaign's goal is to raise public awareness of this discrepancy in federal law.

Symposium to be March 27

The 2004 Native Plant Society Symposium has been scheduled for Saturday, March 27, at the Bunker Hills Activity Center in Coon Rapids. The topic will be savanna and woodland ecology — the dominant historic plant communities of the metropolitan area.

We will explore details about these communities, their geologic origins, current threats, research and restoration efforts, and much more. The Bunker Hills building is surrounded by recent native prairie and savanna restorations that may provide an opportunity for exploration. Watch the newsletter and Web site for more information.

Members of the symposium committee are Karen Schik, chair , Shirley Mah Kooyman, and Jason Husveth.

Fall Plant Sale?

Various means of raising money were discussed at the Sept. 4 MNPS Board meeting, as a $1,000 deficit is projected for 2003/04 if current project funding levels are sustained.

One suggestion was to have a plant sale in September. This sale would not be as extensive as the spring sale. Plants that are left over could be taken home by the grower, or they would be donated to a public park restoration project. Before MNPS attempts a fall plant sale we would like to hear from the members.

1. Would you be interested in purchasing native plants in the fall?

2. Would you be likely to have any native plants to donate to such a sale if it were held in September?

Please contact Dianne Plunkett Latham with your response. Call her at 952-941-3542, send an e-mail to PlunkettDi@mn.rr.com or write: Dianne Plunkett Latham, 7013 Comanche Ct., Edina MN 55439.

Plant Lore

by Thor Kommedahl

What is Culver's-root?

Culver's-root, or Culver's-physic, is *Veronicastrum virginicum*, in the snapdragon family.

How did it get it's name?

It was once named *Veronica virginica,* but the genus name was changed to *Veronicastrum*; the suffix *-astrum* means false, so this is a "false veronica." It was named for St. Veronica who was reputed to have wiped the sweat off of Christ's face. The roots contain a powerful laxative and emetic substance, hence the name. Culver or Culvert was said to have used it in his medical practice in Massachusetts.

What does the plant look like?

It is a native perennial, about two to five feet tall, with leaves in whorls of three to seven around the stem leading to terminal spike-like panicles of tiny, usually white, tube-like flowers that bloom from June to September.

Where does it grow?

Culver's-root grows in almost all counties in the state in moist meadows, thickets, and woods.

Does it have any medicinal uses?

Early colonists learned its uses from Indians. The Seneca Indians, for example, used the root as a purgative. Dried roots are used. Fresh roots are violently laxative. Cotton Mather's daughter in 1716 had tuberculosis, and Mather specially requested Culver's-root as a treatment (not appropriate for a lung ailment). She died soon after.

Seed exchange is Nov. 6

The annual exchange of native plant seeds will be held Nov. 6. Seeds should be in individual envelopes and labeled with the common and scientific names, place of collection, original location of the seed source, if known, and type of habitat. Dave Crawford is chair of the exchange.

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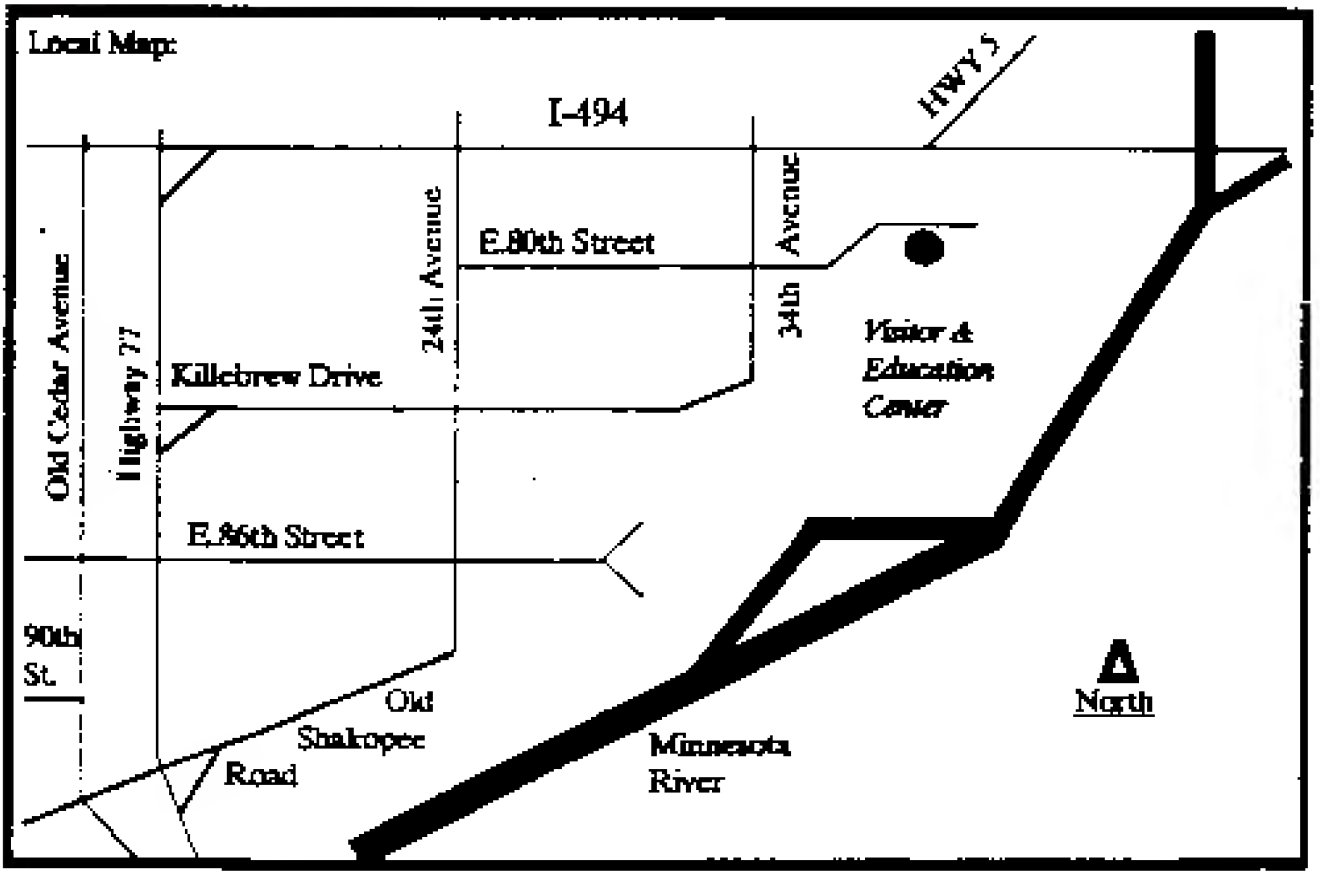
Fall 2003 Issue



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Feb. 5: "Native Plants of Papua, New Guinea," by George Weiblen, University of Minnesota; **Plant-of-the-month:** Cardinal flower, by Evelyn Moyle.

Mar. 4: "Minnesota's Scientific and Natural Areas Program," by Bob Djupstrum, DNR.

April 1: "Genetic Diversity of Native Plants in Minnesota," by Kristine Moncaca; **Plants-of-the-Month:** Bloodroot and Twinleaf, by Shirley Mah Kooyman.

May 6: "Recent Research on Little Bluestem *(Andropogon scoparius);*" Plant-of-the-Month: Little Bluestem, both by Mary Meyer.

June 3: "Native Ferns," by Tom Bittinger; **Annual Plant Sale.**

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Scientific and Natural Areas need support

From the MNPS Board of Directors

Is it becoming harder to find places to photograph your favorite wildflower? Do you enjoy seeing wildflowers in their natural settings? Are other recreational uses destroying your favorite place? Is it becoming more difficult to find good locations for bird watching? If you answered yes to any of these questions, then you may want to take some action.

This year marks the 30th anniversary of the establishment of the first state natural area in Minnesota. The Department of Natural Resources Scientific and Natural Areas (SNA) Program administers state natural areas. These areas include lands for rare and endangered species, outstanding native plant communities, and state significant geological features.

SNAs are the places that Minnesota Native Plant Society members go to photograph elusive orchids, old-growth forests and other unique features. They are the places where we can go to reconnect with nature without being disturbed by ATVs or other recreational vehicles. They protect some of the most sensitive and unique lands in the state, the only public places where many rare plants are found.

Land protection and management of SNAs takes money — public funding — to buy and protect the unique land acquired. This year the Minnesota Legislature will be appropriating money for highways and universities, and purchasing lands for parks and hunting as well as for SNAs. The DNR is only requesting $500,000 to purchase and develop land for natural areas, yet it is requesting tens of millions to buy other land for intensive recreational use.

2004 is a bonding year, so if you want the most critical lands in the state protected as state natural areas, now is the time to contact your state legislator, preferably by letter. The Legislature reconvenes Feb. 2. Let your representative and state senator know that you use SNAs for photography or as places to view rare and endangered species. Or even if you don't visit them, tell your legislators that you want these

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Where did the extra plants go after the June plant sale?

by Dianne Plunkett Latham

The MNPS 2003 June plant sale helped Edina parks as well as our treasury. The sale set a society record. These are the totals for the last five years:

1999 - $593.35
2000 - $424.00
2001 - $360.50
2002 - $454.75
2003 - $834.00

I hope that members will bring even more plants next year. I took the 17 flats of extra plants for Edina City Parks and am deeply grateful to the MNPS for them. Last fall we cleared buckthorn from a small portion (about four acres total) in three of our Edina parks. Garlic mustard, burdock and poison ivy lurked on the outskirts of these parks, and not much was left on the forest floor. If not replanted with native plants, cleared areas can become overrun with noxious weeds.

It mattered not that there were large quantities of some plants left over. The two flats of Jack-in-the-pulpits and the two flats of columbines were better than burdock any day. The seven flats of prairie plants went to Braemar Park. The 10 flats of woodland plants went to Rosland Park. The Edina city horticulturalist was thrilled.

Volunteers from my Kelodale garden club, the League of Women Voters of Edina, plus other concerned residents, planted all 17 flats within a week of receipt. Many children participated, and it was a great way for them to learn about gardening. It was an unexpected windfall that will enable us to show the public what a park should look like — wildflowers instead of noxious weeds.

I took the non-native plants to Vera's community garden on the Minneapolis greenway, where I am also a volunteer. I took the houseplants to a houseplant club, which had a sale at the end of June. All of these organizations thank MNPS for all the wonderful extra plants. I would like to see MNPS continue to support restoration projects by donating their extra plants and seeds from their sales to such projects each year.

Minnesota Native Plant Society's purpose

(Abbreviated from the bylaws)

This organization is exclusively organized and operated for educational and scientific purposes, including the following:

1. Conservation of all native plants.
2. Continuing education of all members in the plant sciences.
3. Education of the public regarding environmental protection of plant life.
4. Encouragement of research and publications on plants native to Minnesota.
5. Study of legislation on Minnesota flora, vegetation and ecosystems.
6. Preservation of special plants, plant communities and scientific and natural areas.
7. Cooperation in programs concerned with the ecology of natural resources and scenic features.
8. Fellowship with all persons interested in native plants through meetings, lectures, workshops and field trips.

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SNAs need help

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critical places protected for present and future generations. Tell them that you want to see $10 million appropriated to accelerate the acquisition of new SNAs now, before the land is lost to development. A few years from now, the same land may be even more expensive, because demand for land is growing as our population grows.

If you have questions, call Linda Huhn at 612-374-1435. To find out who your legislator is, go to the state Web site: www.leg.state.mn.us/leg/Districtfinder.asp

Botany Web sites are photo resources

by Dave Crawford

Several botany Web sites contain good photos of native plants of the northeastern United States. The sites include the following.

The Web site for the Connecticut Botanical Society has many very good photos of northeastern U.S. plants: http://www.ct-botanical-society.org/galleries/galleryindex.html

The University of Wisconsin has a great botany photo Web site: http://botit.botany.wisc This is an address change from the old Virtual Foliage web site.

In Minnesota's own Sherburne County, the Sherburne National Wildlife Refuge Web site has a plant list page with links to photos of many of the plants: http://midwest.fws.gov/Sherburne/Plant.HTM

Do you know of other such sites? Send your recommendations to Dave Crawford at grownativeplants@hotmail.com

Minnesota's state flower, the showy lady's-slipper *(Cypripedium reginae)* grows in some of the state's Scientific and Natural Areas. It is the largest and most beautiful northern orchid. The long-lived plants take about 15 years from seed germination to flowering. *Photo by Jason Husveth.*

Scott Milburn replaces Dan Mielke on board of directors

Scott Milburn was appointed to the MNPS Board of Directors at the board's Dec. 4 meeting. He replaces Dan Mielke, who resigned because his new position is demanding all of his active time. Dan plans to continue, on a more limited basis, his restoration efforts and will continue to search for and identify wildflowers on his land and his uncle's land. He has led several field trips on this land.

Scott is from Arlington Heights, Ill. He holds degrees from Iowa State University (B.S. in Botany) and from the University of Mississippi (M.S. in Biological Sciences). His graduate work focused on evaluating the effects of wintertime flooding on agricultural soils in the Mississippi Delta. "More specifically, the research examined the existing nitrogen budget in the soil and how wintertime flooding affected the total nitrogen budget," he said. His graduate work is included in a recent collaborative effort entitled *Achieving Sustainable Freshwater Systems,* published by Island Press.

"Towards the end of graduate school, I decided that my true interest was not wetland biogeochemistry, but rather plants," Milburn said. "From that point on, I have been focusing much of my time and effort towards the subject of botany, or more specifically, sedges. I started my professional career in Chicago for Hey and Associates, where I was able to learn the flora of the region. I spent about a year and a half working there and decided to move to Minnesota in pursuit of more botanical diversity." Milburn now works with Jason Husveth at Critical Connections Ecological Services.

Old-growth forests are a source of biological materials for restoration

by Lee E. Frelich, University of Minnesota Department of Forest Resources. He presented this information to The Minnesota Native Plant Society on Nov. 6, 2003.

Old-growth remnants are a treasure trove of unique biological resources. Many tree populations that have adapted to unusual site conditions exist and would be good sources for new horticultural varieties of trees that could withstand city conditions.

Examples include paper birch growing on rocky south slopes near the southern edge of its range, and sugar maples growing on rock or on flood plains. There are also numerous examples in Minnesota of trees in old growth that can do things not generally known or expected of a species, such as black ash four feet in diameter, red maple, five feet, cottonwood seven feet in diameter, and so-called short-lived species like jack pine and cottonwood living to age 150-200.

Some of these features occur in the metro area in remnants such as Wood-Rill,Wolsfeld Woods, and Riley Creek Conservation Area. They also occur right on city streets. American elms, for example, were obtained from natural seed sources 100 years ago. Now the natural populations have been through several generations without living a full life span, due to infection by Dutch elm disease by age 30. But those older elms in the city have been protected from elm disease and still represent the original genetic structure of native elm populations.

Ancient populations also exist in the city in the same locations that they have been for thousands of years. The inner city of Minneapolis, for example, has many bur oaks that were present before the city existed. Since the area was oak savanna for several thousand years, these are remnants of ancient populations that are adapted to local climate and soils. Even if the individual trees are not ancient, the populations often are.

There is also much to be gained from old growth that could be useful for management and restoration of commercial forests. High-grading is the practice of taking the best trees (tallest trees of best growth form), and leaving poor individuals as well as less desirable species to regenerate the next forest. High-grading has been and still is a common harvesting practice, and it will eventually lead to degradation of the quality and volume of timber produced. Old-growth remnants contain trees that have only undergone natural selection via natural disturbance and competition with other trees.

Two of the most important scientific values of old-growth forests are as a control for the commercial forest landscape and for lessons we can learn from them, such as resilience after disturbance. Silviculture, the science of growing trees, is a long-term experiment that will last thousands of years. Like all experiments, controls are necessary. Forest ecosystems did not evolve to produce commercial crops, and we do not and will not know for some time how much harvesting is ultimately sustainable. Old-growth remnants that experience only natural disturbance can be used for periodic comparison with second growth to make sure that slow decline in productivity, too slow to be noticed by one generation of foresters, does not occur.

Resilience to rather severe natural disturbances is a very special feature of old-growth forests. Near-boreal forests of jack pine and black spruce on the Canadian Shield bedrock in northern Minnesota can burn right down to the bedrock and bounce back to dense forest within a few years, but often become brushy after harvest. Someday we may learn how this resilience works, and be able to use that knowledge to better manage commercial forests.

Preservation of old-growth forests can be fully justified based on the scientific values just discussed. Spiritual and esthetic values, and the fact the people want them, only add to the reasons for preserving them. We should not forget how important it is to allow old-growth forests to experience and recover from natural disturbances, since it seems that this process is probably the most important aspect of old growth, and it is what shaped the ancient populations of trees over thousands of years. Certainly, it is more important than the age and size of the trees at a given moment in time.

Abatement events posted

The schedule for noxious weed abatement events is posted on the MNPS Web site. Last year 36 abatement and six educational events were posted. We need information on 2004 events. If your organization has scheduled a time to remove buckthorn, garlic mustard, Siberian elm, mulberry, honeysuckle, or other invasives, send the information to Dianne Plunkett Latham at plunkettdi@mn.rr.com.

Garlic mustard management plan developed

A management program for attacking garlic mustard has been developed by Driftless Land Stewardship, a restoration firm in southwestern Wisconsin. The firm says that their protocol, which integrates multiple control strategies, is very effective. Using it, they have taken massive garlic mustard infestations to "manageable levels" in two years. Their comprehensive approach uses a combination of prescribed burning, weed torching, hand-pulling and herbicide application, coupled with intensive survey and documentation.

The DLS method of garlic mustard control is described below and on the company's Web page — http://driftlesslandstewardship.com/id30.htm

In fall, winter or spring, while most natives are dormant, garlic mustard should be foliar-sprayed with Roundup (or, if green natives such as sedges are present, Garlon4/water). Always use label recommendations; a higher percentage of herbicide is not better and is often less effective. The herbicide can be applied to garlic mustard as long as the ambient temperature is above freezing.

If the garlic mustard infestation is in a fire–dependent natural community (are oaks present?), broadcast-burn the garlic mustard-infested areas in late spring when the cotyledonous-stage plants are present. This step kills many first-year plants as well as removes leaf litter that prolongs germination and frustrates the control process.

Before garlic mustard sets seed, all second-year plants should be pulled to prevent seed production. Follow hand-pulling by burning off all of the garlic mustard seedlings with a hand-held propane weed torch. (DLS does not burn in the fall, because the roots remain viable and resprout in the spring. Top-killed plants cannot be sprayed in the winter. Therefore, fall burning increases the amount of hand-pulling that is necesssary.)

This cycle needs to be repeated until garlic mustard is eradicated. The seed can remain viable in soil for five to seven years. All non-infested areas should be monitored to prevent further infestation.

March 27 symposium is on savannas, woodlands

by Karen Schik

The annual symposium is the flagship event of the Minnesota Native Plant Society. It is always a topical subject that draws a crowd, and this year is no exception. The title of the 2004 symposium is: *Our Historic Landscape: the ecology of savanna and woodland in the metropolitan area*. It will be held on Saturday, March 27, from 8 a.m. to 4 p.m. at the Bunker Hills Activity Center, Bunker Hills Regional Park, Coon Rapids. The building is surrounded by native prairie and savanna restorations.

The board discussed a number of good options for the topic of this year's symposium. This one was selected because there is currently a lot of activity in the plant communities, as well as a lot of local expertise on the subject. Most members live in the metro, which was historically dominated by these communities (and prairie). We are, however, very cognizant of the fact that there are many outstate members in the society, and we would like to encourage more members throughout the state.

The long-term plan of the board is to have future symposia focus on different plant communities and regions of the state over the next several years. We welcome your suggestions.

A brochure on this year's symposium will be mailed in February. The following presentations have been scheduled.

- Geologic overview
- Plant communities
- Rare plants
- Plant-insect interactions
- Ethnobotany
- Mammals, birds, amphibians, and reptiles
- Degrading factors
- Case studies in restoration

Symposium committee members are Karen Schik, chair, Shirley Mah Kooyman, and Jason Husveth.

MNPS display is a winner

by Dianne Plunkett Latham

I recently became aware that educational displays can be entered at flower shows when a member of my garden club asked me to enter my buckthorn display at the July Tri-City Flower show (Edina, Richfield, Bloomington). It was awarded second place. Since so many people picked up the buckthorn literature, I decided to create a new buckthorn display and enter it in the State Fair Flower Show. There it got an honorable mention, and more than 100 people picked up the literature.

At the Sept. 13 Arboretum Flower Show, I entered the buckthorn display (second place), my all-new invasive plant display (third place) and the MNPS display.

MNPS got first place and the Educational Award (a big maroon ribbon)! Congratulations to all those who had a hand in designing the MNPS display. It is truly a winner!

Wild rice is valuable food and a culturally significant resource

Darren Vogt, environmental biologist for the 1854 Authority, discussed the "Biology, Traditional Harvest, and Cultural Significance of Minnesota Wild Rice" at the Dec. 4, 2003, MNPS meeting. The following article includes information from Vogt's abstract and from the "Wild Rice Resource Guide" published by the 1854 Authority.

The 1854 Authority is an inter-tribal natural resource management agency governed by the Bois Forte Band and Grand Portage Band of Lake Superior Chippewa. The organization is charged to preserve and protect the treaty rights and natural resources in the 1854 Ceded Territory of northeastern Minnesota.

Wild rice, known as manoomin in the Ojibway language, has been a valuable food source and a culturally significant resource for Native Americans for centuries. The 1854 Authority developed the *Wild Rice Resource Guide* in an effort to outline potential water bodies where wild rice may be harvested within the 1854 Ceded Territory. The booklet also includes information about wild rice biology, harvest regulations, and traditional harvesting and finishing.

Several varieties of wild rice have been identified. The wild rice found in northeastern Minnesota can be classified as *Zizania palustris*, but is sometimes misnamed as *Zizania aquatica.* Wild rice is not related to white rice *(Oryza sativa).*

Wild rice is an annual plant that grows best in shallow lakes and rivers. It begins growing soon after ice-out, reaching the water surface in June. During this time, the plants lie flat on the water surface and can form vast leafy mats. During July, the rice grows vertically and eventually stands out of the water up to six to eight feet. Separate male and female spikelets are located on a terminal flowering panicle. Cross-pollination occurs naturally in rice beds, usually in late July. Rice kernels begin to fill with a milky substance in late July to early August, later hardening to become seeds.

Wild rice ripens in late August or early September, and it is during this time that harvesting is done. A state license or 1854 Authority identification card (for Bois Forte or Grand Portage band members) is required. Two people in a canoe typically cooperate to harvest wild rice. One person guides the canoe while the other uses knockers (short pieces of wood) to harvest the rice. Because the kernels ripen at different times, the same wild rice bed can be harvested several times in a year.

Finishing of wild rice prepares it for cooking or storage and traditionally includes drying, parching, hulling, and winnowing. Much of the wild rice for sale in stores is actually "paddy" rice, a hybrid that is cultivated in artificially created fields and mechanically harvested.

If wild rice is not harvested, the ripe seeds will eventually fall into the water and sink into the sediment at the bottom of the lake or river. With favorable conditions, seeds will grow into wild rice plants beginning the next spring. However, wild rice seed also has the ability to remain dormant until favorable conditions are encountered. This dormancy can last for years if the seed remains in the water. Wild rice is susceptible to high water levels, human disturbances, and competing vegetation such as bur reed, water lilies, bulrushes, and pickerel weed.

If you are interested in purchasing native-harvested rice, be sure to read package labeling to verify authenticity, and make inquiries of your grocer. You may also want to look for native-harvested rice at food co-ops. In the Twin Cities area, try Lakewinds Natural Foods, Linden Hills Co-op, Mississippi Market, River Market Community Co-op, Seward Co-op Grocery & Deli, Valley Natural Foods, and Wedge Co-op. It is also available at St. Peter Food Co-op in St. Peter and may be available at other co-ops in the state.

For additional information, contact the 1854 Authority at 4428 Haines Rd., Duluth, MN 55811; 218-722-8907; www.1854authority.org

The buckthorn-Asian lady beetle connection

Buckthorn played a role in the Asian lady beetle infestation last fall, according to Bruce Potter, a University of Minnesota biologist.

Buckthorn is the primary host of soybean aphids, which are eaten by the Asian lady beetles. In the fall, the aphids lay eggs at the base of buckthorn buds. The eggs hatch in the spring, producing asexual females that reproduce asexually on buckthorn and then move to soybeans, their alternate host. Some winged aphids travel long distances. "Eggs on buckthorn are believed to be the only way soybean aphids can overwinter here," Potter said.

Board member nominees to be announced Feb.5

by Linda Huhn

At the Feb. 5 Minnesota Native Plant Society membership meeting, the society's Board of Directors, as required in the bylaws, will introduce three candidates it deems qualified to fill the three board member positions that expire in 2004. Additional nominations may be made by members.

Each year three of the nine board members, who serve staggered three-year terms, are either up for re-election or step down. Board members whose terms expire in 2004 are President Jason Husveth, Vice President Linda Huhn and Secretary (and Former President, 2000-02) Joel Dunnette.

All candidates for the board must have been active society members for more than one year. Any interested member in good standing who meets this qualification may also become a candidate.

At press time, the Nominations Committee, chaired by Vice President Linda Huhn, is selecting a slate of three nominees to propose to the board for its approval as candidates. Any members who would like to nominate themselves or other members should call or e-mail Linda Huhn at 612-374-1435, or lindahuhnphoto@aol.com

At the March 4 annual meeting, secret ballots will be cast by members present. Three directors will be elected by a simple majority of all candidates. These will include the board-approved slate of three candidates, any other announced candidates, and nominations from the floor.

An identified absentee ballot may be cast by mail if obtained from Secretary Joel Dunnette and returned to him before the election. (Contact Joel: dunnette.joel@mayo.edu). Voting by proxy is not permitted under the society's bylaws.

Election results will be announced immediately and will also be published in the spring *Minnesota Plant Press*. New board members will begin their three-year terms of office in June 2004.

The board hopes all members interested in serving the society (which, like most volunteer organization is run by just a few volunteers) will step forward and run for office. We need your skills, your ideas, and your dedication. Call or e-mail Linda at the above numbers.

Is your town a 'Native Plant Community?'

by Joel Dunnette

How can we raise awareness of native plants? You've seen signs promoting towns as "Tree City USA." Why not extend that idea to native plants? The Prairie Smoke Chapter of The Prairie Enthusiasts, Minnesota Department of Natural Resources and MNPS are beginning discussions of a plan to do just that.

A town would get a sign recognizing it as a "Native Plant Community" if they have an area of native plants and encourage use of native plants. Details remain to be worked out. You can help make this happen. Contact Joel Dunnette at Dunnette.joel@mayo.edu>

Booth was in school fair

Between 700 and 1,000 people attended the Volunteer Fair at Edina High School Oct. 28. MNPS was one of 55 participating organizations. Diane Plunkett Latham and Linda Huhn set up and staffed the booth.

Plant Lore

by Thor Kommedahl

What is prickly pear cactus?

Prickly pear cactus is a species of *Opuntia*. Species native to Minnesota are *O. fragilis* and *O. macrorhiza*, but *O. humifusa* has also been reported. These species are in the cactus family.

What do these names mean?

Opuntia is a Greek city, and this name was used for succulent plants by Tournafort. Others say it was a name given by Pliny for a plant described by Theophrastus; however, neither of them could have been describing this plant for it was not present in Europe until the discovery of the New World. *Fragilis* means fragile, *macrorhiza* means large root, and *humifusa* means sprawling. The "pear" refers to the fruit.

Where do these plants grow?

Opuntia species are native to North and South America. In Minnesota they are found along the Minnesota River and in the southwest part of the state, on rocks, sand dunes and prairies, and along shores.

What do the plants look like?

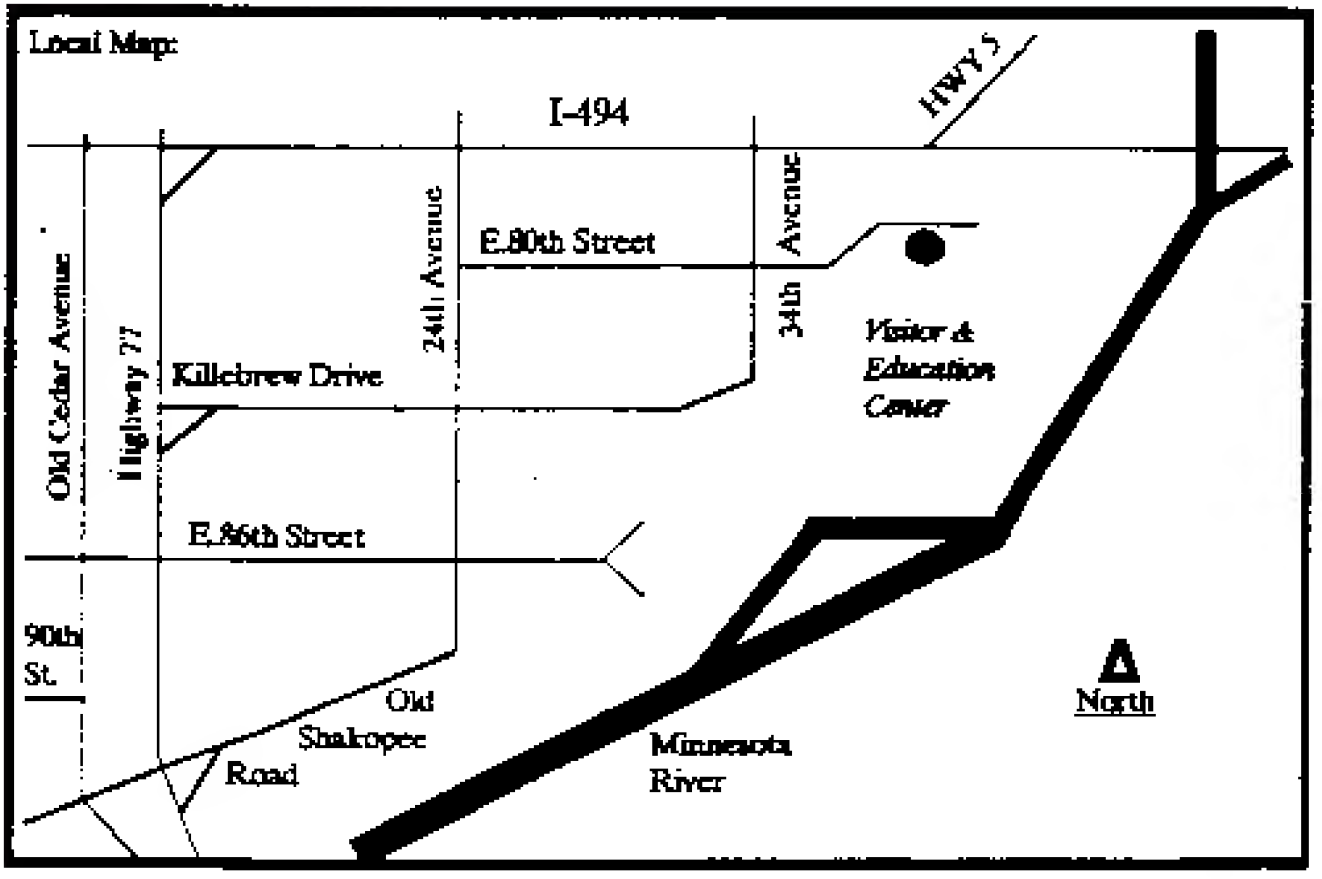
Minnesota species are prostrate and spreading and form large mats. The stems (sometimes called pads) are flat and spined. Flowers are yellow, often with a red or reddish center, and produce a juicy berry. They bloom in early summer.

Does the prickly pear have any uses?

Most of the uses are attributed to *O. humifusa*. Pads are roasted, peeled, sliced, and eaten. Seeds are roasted and ground as a meal for soup thickeners. The Pawnee and Dakota Indians used the pads for sizing to fix colors on hides or receptacles made from hides. They also ate fruits fresh or dried. American Indians also applied fruit juice to warts and drank pad tea for lung ailments. An Israeli research group used flowers to reduce urgency to urinate for those with benign prostatic hyperplasia.

Minnesota Native Plant Society
University of Minnesota
250 Biological Sciences Center
1445 Gortner Ave.
St. Paul, MN 55108

Winter 2004 Issue



Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 23 Number 3 **Spring 2004**

Monthly meetings

Minnesota Valley National Wildlife Refuge
Visitor Center, 3815 East 80th St.
Bloomington, MN 55425-1600
952-854-5900

6:30 p.m. — Building east door opens
6:30 p.m. — Refreshments, information, Room A
7 – 9 p.m — Program, society business
7:30 p.m. — Building door is locked
9:30 p.m. — Building closes

Programs

The MNPS meets the first Thursday in October, November, December, February, March, April, May, and June. Check the Web site for more program information.

May 6: "Recent Research on Little Bluestem *(Andropogon scoparius);*" Plant-of-the-Month: Little Bluestem, both by Mary Meyer.

June 3: "Native Ferns," by Tom Bittinger; **Annual plant sale.** (See article on page 5.)

Spring Wildflower Guide

Do you know where to find wildflowers in the Twin City metro area? The MNPS booklet, *Guide to Spring Wildflower Areas, Twin Cities Region,* gives the locations and access rules of 42 parks and natural areas and lists many of the plants that may be seen in each location. The booklets cost $5 ($4 for members) and are available at all MNPS meetings.

MNPS Web site

http://www.stolaf.edu/depts/biology/mnps
e-mail: MNPS@HotPOP.com

MNPS Listserve

Send a message that includes the word "subscribe" or "unsubscribe" and your name in the body of the message to: mn-natpl-request@stolaf.edu

Interactive key to Minnesota's woody plants being developed

by George Weiblin, University of Minnesota. He announced this new key during his talk at the Feb. 5 meeting.

An interactive key to the woody plants of Minnesota is being developed at the Bell Museum of Natural History at the University of Minnesota with the goal of providing an easy-to-use guide to identification of all woody plant species occurring in the state. Interactive keys have many advantages over traditional keys, and this one is designed to be accessible on the Web to anyone with a basic knowledge of botany. To use the key, go to http://geo.cbs.umn.edu/treekey/navikey.html

Traditional keys involve a series of choices that divide organisms into smaller and smaller groups, eventually leading to a species description. Each choice leads further down a particular path, and users become lost if a wrong choice is made at any point. Keys can be very difficult if the user does not have complete information at hand, or is not skilled in the art. For example, suppose that a key asks whether a plant has fleshy fruits or dry fruits, but the plant in question has not yet flowered. Information technology provides a robust alternative in which users query a database according to whatever information is available.

What is unique about the Interactive Key to the Woody Plants of Minnesota is the web interface that allows anyone with a web browser free access to this identification tool. We hope to expand this resource from 277 species of woody plants to more than 4,000 species of plants and fungi recorded in the state. In the future we hope to enhance the key with digital images and information on leaves, twigs, flowers, fruits, and fungi.

We welcome your comments, corrections and suggestions, as we are still in the development phase of this project. Please send feedback to Dr. George Weiblen (gweiblen@umn.edu) or Dr. Anita Cholewa (chole001@tc.umn.edu).

New board members are elected

MNPS members elected two new board members and re-elected one current member at the March 4 meeting. Ken Arndt and Ron Huber will succeed Board Members Linda Huhn and Joel Dunnette in June. Jason Husveth was re-elected to the board. Officers will be elected at the June board meeting.

Ken Arndt is an urban forester for Pioneer Engineering and also does native plant salvage work. He is a graduate of the University of Minnesota.

Ron Huber does county survey work on beetles and lepidoptera for the state. He also identifies these insects for the Science Museum and University of Minnesota collections, as well as for various museum collections around the country. He has a great interest in natural resource uses and is learning more about native plants. Ron is a frequent attendee at our meetings.

Jason Husveth, our current president and field trip chair, is an ecologist with Critical Connections Ecological Services, Inc.

The MNPS Board of Directors has nine members who serve three-year terms. Those whose terms expire in 2005 are Karen Schik, Janet Larson and Doug Mensing. Those whose terms expire in 2006 are Shirley Mah Kooyman, Scott Milburn and Dianne Plunkett Latham. Treasurer David Johnson and *Minnesota Plant Press* Editor Gerry Drewry regularly attend the board meetings, which are open to all members.

Look it up on the Web

What plants will grow on different types of sites? The Minnesota Department of Transportation has answers, and now they are posted on the PlantSelector Web site. This interactive program contains data on more than 650 woody and herbaceous plants. Users may consider nearly 50 different site and plant traits while looking for a plant that is a perfect fit. You will find it at www.plantselector.dot.state.mn.us

Native Plants Online is the Lady Bird Johnson Wildflower Center resource for native plant information. It contains information about recommended native plant species, businesses and organizations in different states. Go to http://wildflower.avatartech.com/Plants_Online/Index2.html

Minnesota Native Plant Society's purpose

(Abbreviated from the bylaws)

This organization is exclusively organized and operated for educational and scientific purposes, including the following:

1. Conservation of all native plants.
2. Continuing education of all members in the plant sciences.
3. Education of the public regarding environmental protection of plant life.
4. Encouragement of research and publications on plants native to Minnesota.
5. Study of legislation on Minnesota flora, vegetation and ecosystems.
6. Preservation of special plants, plant communities and scientific and natural areas.
7. Cooperation in programs concerned with the ecology of natural resources and scenic features.
8. Fellowship with all persons interested in native plants through meetings, lectures, workshops and field trips.

MNPS Board of Directors

President: Jason Husveth, cciecology@att.net

Vice-President: Linda Huhn, 612-374-1435.

Secretary: Joel Dunnette, dunnette.joel@mayo.edu

Shirley Mah Kooyman, shirley@arboretum.umn.edu

Janet Larson, janetlars@pclink.com

Scott Milburn, smilburn@ccesinc.com

Douglas Mensing, dougm@appliedeco.com

Karen Schik, Secretary #2, kschik@fmr.org

Dianne Plunkett Latham, plunkettdi@mn.rr.com

Treasurer: David Johnson, MNPS@HotPOP.com

Listserv Coordinator: Charles Umbanhowar, ceumb@stolaf.edu

***Minnesota Plant Press* editor: Gerry Drewry,** 651-463-8006; fax, 651-463-7086; gdrewry@infionline.net

Technical or membership inquiries: MNPS@HotPOP.com

Welcome, new members

by Jason Husveth, president

Greetings, Native Plant Society members! Spring is finally here, and it's time to start enjoying the native plants and natural areas that make Minnesota so special. The skunk cabbage is flowering, and I have heard that snow trillium is in bloom at Eloise Butler Wildflower Garden.

I am pleased to report that our 2004 Symposium, *"Our Historic Landscape, The Ecology of Woodlands and Savannas in the Minneapolis / Saint Paul Metropolitan Area,"* was a great success. I would like to especially thank all of our speakers, who graciously gave their time to prepare and present a varied and informative selection of topics concerning the ecology of these habitats. The society owes a debt of gratitude to all who contributed to the planning and preparation for the symposium.

In October 2003, Karen Schik took a lead role in planning and pulling together much of this year's symposium. Shirley Mah Kooyman, Linda Huhn and I assisted Karen with the planning, arranging speakers, and advertising the symposium. A special thank you to Ron and Cathy Huber, who stepped in and masterfully handled the duties of registration when Shirley became ill. We are grateful to Ken Arndt, Janet Larson, Scott Milburn, Doug Mensing and many others who volunteered their time and energy on the day of the symposium to make sure everything went as smoothly as possible. Finally, a debt of gratitude to the Anoka Conservation District staff for generously allowing us the use of their computer projector when we were unable to get ours to work!

Maybe the most exciting thing about the symposium is that we had over 50 new memberships and membership renewals! If you are new to the society, I want to welcome you on behalf of the board and all of our members. If you are renewing after a brief hiatus, I want to welcome you all back to the society as well.

We currently have two field trips planned for the spring season, and several others in the works. Doug Mensing and Joel Dunnette have taken the lead on planning our Spring Wildflower Weekend in Whitewater State Park in southeastern Minnesota for the weekend of May 7 - 9. If you were unable to make the trip last year, I highly recommend you join us in exploring the flora of Whitewater State Park and Whitewater Wildlife Management Area. The spring ephemeral displays are magnificent.

Doug Mensing, Scott Milburn, and I will lead a day trip to the Louisville Swamp Management Unit of the Minnesota Valley National Wildlife Refuge on Saturday, May 22. Other members are working on organizing additional field trips throughout the summer. These will be announced at the May and June membership meetings, as well as on the MNPS Web site. Mark these dates on your calendar and join us in the field.

In addition to field trips, be sure to participate in our native plant sale, which will be held immediately following our June 3 meeting at the Minnesota Valley National Wildlife Refuge. We will hold the plant sale out of doors this year, to allow for more space to arrange and display the plants that our members donate.

There are many ideas in the works for the future of the society. I have begun discussing holding our regular monthly meetings through the summer, possibly on Saturdays, in various natural areas. This would provide opportunities for our membership to experience and learn about our native flora and natural areas first-hand in the field during the growing season. I would enjoy hearing from the membership regarding regular summer meetings starting in 2005. I consider it a privilege to serve as president of this diverse and growing society. I encourage each of you to contact me or a board member if you have ideas for ways to make the society even better. I hope you all enjoy the beautiful spring weather, and I look forward to seeing you at the monthly meetings and on this spring's field trips.

Two field trips planned in May

MNPS members have organized two field trips in May. One is a weekend at Whitewater State Park, May 7 - 9; the other is a botany walk through Louisville Swamp Management Area, near Jordan, on May 22.

Doug Mensing and Joel Dunnette will lead several wildflower walks during the Spring Wildflower Weekend, May 7 – 9, at Whitewater State Park in southeastern Minnesota. The society has reserved camping area #2. Participants should bring their own camping equipment and food. The society is only providing the campsite and guides. A fee of $5 per person will be collected to cover the cost of the group campsite. For more information, contact Doug Mensing at dougm@appliedeco.com

Jason Husveth, Doug Mensing and Scott Milburn will lead the Louisville Swamp walk on May 22. It will begin at 9 a.m. at the trailhead, which is about 4.5 miles south of Shakopee. Take Hwy. 169 to 145th St, go past the Renaissance Festival entrance and cross the railroad tracks. The Louisville parking lot will be on your left. The walk will end at about 2 p.m., so bring a lunch. This event is limited to 30 participants. More details are on the MNPS Web site. To sign up, contact Jason Husveth at jhusveth@ccesinc.com

2004 symposium is a great success

by Karen Schik, symposium chair

The Minnesota Native Plant Society has a history of excellent annual symposia, and this year was no exception. On Saturday, March 27, nearly 160 participants packed the Bunker Hills Activity Center to attend "Our Historic Landscape: The Ecology of Woodlands and Savannas in the Minneapolis/St. Paul Metropolitan Area."

The day got off to a rocky start with Powerpoint projector difficulties, the bane of new technology. Fortunately, staff from Anoka Conservation District saved the day by fetching their projector from their nearby office. Once underway, participants were treated to an entire day of thoroughly interesting and informative presentations. Hannah Dunevitz became the first speaker, due to the technical difficulties. Her descriptions of savannas and woodlands provided an excellent overview of these communities and laid the groundwork for the following talks. No doubt there will be many new visitors this season to all the wonderful places she described where native savanna and woodland remnants can be found.

Dr. Cynthia Lane, Ecological Strategies, followed with a more detailed look at the insect world of savannas, especially focusing on the interesting life history of the karner blue butterfly, a state endangered species. Because savannas and woodlands are now rare plant communities in the state, they also harbor numerous rare plant species. Barb Delaney provided interesting details and wonderful photographs of many of those rare plants. John Moriarty, Ramsey County Parks and Recreation, finished the morning with a comprehensive view of most of the vertebrate animals that find residence in savannas and woodlands. He demonstrated how gophers are a keystone species. Many animals depend on them either as a food source or for the underground shelter they create.

After a wonderful lunch of organic food, the equipment was finally ready for our keynote speaker. Dr. Ed Cushing, University of Minnesota, gave a stimulating and intriguing geologic history of the plant communities. Using maps, he showed how they are very strongly tied to the soils in the area, which formed from different glacial processes. Oak barrens occur on sandy soils, maple-basswood forests occur on heavier till soils of sand, gravel and silty clay. Topography was also a strong influence, with prairie in flatter areas. Fire, which also shapes plant communities, was determined in part by the topography.

Steve Chapman gave an overview of native American uses for many native plants and showed how important their discoveries were to present day uses of plants. Some plants, such as wild rice, are more important regionally, but others, such as corn and squash, are used worldwide.

Degrading factors of woodlands and savannas was the next topic, presented by Doug Mensing, Applied Ecological Services. He gave a clear synopsis of the characteristics of a healthy system, causes of degradation, and subsequent effects. One interesting slide showed the dramatic decline of plant and bird species in natural communities after buckthorn invasion. Doug also outlined basic restoration and management strategies.

Kim Chapman, also from Applied Ecological Services, followed with a more philosophical view of lessons learned from savanna restorations in the Midwest. He introduced the term "polymorphous" to describe the changing nature of savannas and how this means different things to different people. He also discussed restoration efforts and showed how some components of the system are often overlooked. Forbs, for example, often regenerate well, but grasses and sedges do not. Ground cover also establishes well at dry sites, but not at mesic sites because there is more weed competition and damage from grazing.

Fred Harris wrapped up the day with a discussion of an oak savanna and prairie restoration project at Pine Bend Bluffs along the Mississippi River in Dakota County. The most challenging exotic plant to control at the site has been cheatgrass (*Bromus tectorum*). Carefully timed burning seemed to provide the best results.

In addition to the speakers, many people contributed huge amounts of time and energy to helping make the symposium a success. Special thanks go to Jason Husveth and Shirley Mah Kooyman, co-chairs of the symposium committee and MNPS board members. Jason, in particular, donated countless hours in many months of planning, organizing, and trouble-shooting. When Shirley became ill, Cathy and Ron Huber jumped in to take over the registration work. Board members Linda Huhn, Dianne Plunkett-Latham, Doug Mensing, Scott Milburn, Joel Dunnette, Ken Arndt and David Johnson all helped with preparation tasks and the event itself. Members who volunteered at the event include Kathy Colla, Dorothy Paddock, Mary Nolte, and Melissa Arikian. Many thanks also go to all the people who attended the event.

The result of all this good energy was that the society raised over $2,000 from the symposium and gained 58 members. These funds will go far toward continuing to promote outreach and education about Minnesota native plants.

Would you like some sawdust with that?

by Ethan Perry

Remember last year when the Minnesota Legislature threatened to prohibit the Minnesota Department of Transportation from using native seeds in roadside planting? Well, researchers from the University of Minnesota Department of Agronomy have published a study that demonstrates yet another benefit of roadside prairies: weed control. Dana Blumenthal and his colleagues compared weeds in plots of seven-year-old prairie restoration to plots of well-established old field on sandy soils. Weeds had declined by 94% in the restored plots. (Weeds were defined agriculturally, so old field grasses — Kentucky bluegrass and smooth brome — were not considered weeds, while some natives, such as ragweed and horseweed, were.)

These researchers also looked deeper into factors that give either weeds or prairie species a competitive advantage over the other. In a study that hasn't been published yet, they added weed seeds to the same experimental plots. As expected from the first study, many fewer weeds became established in the prairie plots. When they added nitrogen to the soil, however, the benefits of restoration were reduced. Nitrogen is often a limiting nutrient for plants. The experiment suggests that prairies can exclude some weed species because prairie plants are better competitors for scarce nitrogen. When nitrogen is plentiful, the weeds have a better chance. This also explains why restoring prairie is often easier on sandy soil than on nitrogen-rich loam.

How can we use our knowledge of nitrogen to help restorations? In a third study, the researchers tilled various amounts of carbon (in the form of sawdust) into the soil before planting both prairie and weed seeds. Soil microbes respond to increased carbon by immobilizing nitrogen, reducing the amount available to plants. The highest level of carbon addition resulted in fewer weeds and more prairie.

Most other carbon enrichment experiments have not been so successful, but researchers at the U of M Department of Horticulture have just published a study of carbon enrichment to control reed canary grass. Rank mats of this grass have smothered acres and acres of wetlands across the Midwest. Laura Perry and her colleagues grew reed canary grass and a native sedge (*Carex hystericina*) together in a greenhouse. In untreated wetland soil, reed canary grass had five times the biomass of the sedge, but when sawdust was added, the sedge was six times more abundant than the grass.

Is it just coincidence that of the few studies finding a benefit to carbon enrichment, two were conducted in Minnesota? Actually, no. Laura, who happens to be my sister, and Dana, who happens to be her husband, point out that they both used much greater amounts of carbon than previous studies. Even if adding carbon to soil proves impractical for actual restoration projects, we can still reduce nitrogen inputs in order to benefit native species. Buffer vegetation around wetlands can significantly reduce the amount of nitrogen reaching them in runoff. We can also try to minimize the amount of nitrogen released by burning fossil fuels, which then falls in the rain. But maybe, bizarre as it sounds, site preparation for some future restorations will include tilling sawdust into the soil.

Plant sale to be held outdoors

The annual MNPS native plant sale will be held June 3 at the Minnesota Valley National Wildlife Refuge. For the first time, the sale will be held outdoors, rain or shine.

Plants will be arranged on the low walls near the building entrance. They will be grouped according to habitat (sun or shade). Woody plants will be in a separate area. In order to provide more time for the sale, we need the cooperation of every member. The June meeting will start early, at 6:45 p.m. The sale will start at about 7:30 p.m., after Tom Bittinger's talk on native ferns.

Plants must be delivered early. Bring your plants after 5 p.m. and no later than 7 p.m. Each plant must be individually potted and labeled. Include your name, the location where the plant was grown, the plant's common and scientific names, and any other pertinent information, such as seed source. Do not put a price on the plant. However, you may designate special plants to be considered for the silent auction. Plants that arrive after 7 p.m. or are not potted and labeled on arrival may not make it into the sale.

Dave Crawford, park naturalist at Wild River State Park, and Gerry Drewry are co-chairs of the plant sale. Dave will price the plants, select some for the silent auction, ensure that only native plants are in the sale, and specify the habitat if there are questions. If you would like to help at the sale, call Gerry at 651-463-8006.

Biodiversity exhibit

May 2 will be the final day to see the exhibit "Biodiversity 911: Saving Life on Earth" at the Bell Museum of Natural History on the University of Minnesota Minneapolis campus. For information, call 612-624-7083.

Native plant species abound in Papua New Guinea

by Dr. George Weiblen
Assistant Professor, Department of Plant Biology, Curator of Flowering Plants, Bell Museum of Natural History, University of Minnesota. This is an abstract of his talk at the Feb. 5 MNPS meeting.

The tropical island of Papua New Guinea is about as far from the Minneapolis neighborhood that I call home as you can get. New Guinea's forests are one of the last great biological frontiers on earth, and their incredible diversity is what first attracted me to this far-away place.

For instance, the island has at least 20 times more species of plants than are found in Minnesota. Nobody knows exactly how many because much of Papua New Guinea remains unexplored. Countless new species await discovery, if only biologists can locate them before it's too late. This tropical forest wilderness is slightly larger than the state of Texas, an area that continues to shrink under intense pressure from industrial logging and a growing local population.

I first went to Papua New Guinea in 1992 in an effort to catalogue the diversity of tropical trees, but I keep returning because of the people I met there. Over the years, my botanical research has developed into an ongoing exchange with local residents whose future critically depends on the fate of the forest.

Papua New Guinea doesn't have national parks protecting its biological riches. Instead, 98 percent of the country is owned according to tribal tradition, which means that environmental protection is the sole responsibility of landowners. This unique situation is a challenge for biologists confronted by a rising tide of species extinction in tropical forests worldwide. Tribal land ownership in Papua New Guinea means that a botanist can't so much as set foot in the forest without intruding on somebody's backyard. Local people share the names and traditional uses of native plants with botanists like me in the hope that this information can be preserved for future generations in the face of tremendous cultural change.

Additional information is available at http://geo.cbs.umn.edu

Volunteers needed to search for rare lilies and orchids

by Linda Huhn

Could you help find rare dwarf trout lilies or orchids? Nancy Sather is again conducting the Natural Heritage and Nongame Research Program's rare plant search and monitoring program.

The hunt for dwarf trout lilies will start April 20 in Nerstrand State Park and other locations in Rice and Goodhue counties. It will continue through the month of April.

Orchid work will be conducted July 5 - 14, primarily in Polk, Pennington and Kittson counties in northwestern Minnesota.

People with GPS capabilities are especially needed for both projects. To volunteer, contact Nancy Sather at nancy.sather@dnr.state.mn.us Send her your e-mail address, phone number and specific information on when you could work.

Plant Lore

by Thor Kommedahl

What is goldenseal?

Goldenseal is *Hydrastis canadensis*, in the buttercup family. Other names include ground raspberry.

How did it get these names?

Hydrastis is made up of two words meaning water and to act, referring to the plant's active juice. The goldenseal name comes from the yellow scars left on the rhizome by the stem that emerges each spring. It has been called ground raspberry because of its resemblance.

What does the plant look like?

It is a low, perennial herb with leaves and fruit similar to raspberry, has a fleshy rhizome with yellow interior, hairy stems, two alternate leaves that are palmately five- to seven- lobed, and flowers with three sepals but no petals and mostly greenish-white stamens. The fruit is a globose berry made up of many miniature, one- to two- seeded drupes.

Where does the plant grow?

It thrives in rich soil of shady woods and moist places at the edges of wooded lands. It flowers from April to May and fruits in June. It is native to Minnesota in southeast counties. Because of overharvesting, it is almost extinct.

Did American Indians use this plant?

The Indians valued the root as a tonic, to improve digestion, to treat eyes, and as a dye. Pioneers adopted the goldenseal in their folk medicine.

Does it have medicinal uses?

Root teas were made to treat membranes in mouth, throat, and uterus, and a tea (wash) was a remedy for eye infections. Until the 1980s, root components were part of commercial eyewash preparations. Goldenseal may help in treatment of tuberculosis, according to a 1998 study. It contains the alkaloid berberine.

Memories of Nerstrand Woods

by Jean McIntosh. She was a secretary in the University of Minnesota Department of Botany for many years.

As a botany major at the University of Minnesota, I joined the Linnaean Club and participated in its activities, especially field trips. In the spring of 1939, Bruce Ledin introduced us to Nerstrand Woods. He never could remember which road to take out of Northfield, so we approached the woods from all different directions. (There weren't many road numbers on country roads.) I finally made a chart of the road on the return trip so we could go the most direct route. The club members lobbied the Legislature, and we think we helped make the area a state park in 1945.

During the latter years of World War II, there was gas rationing (1943, 1944), so we couldn't drive down there. However, the Chicago Great Western train went from St. Paul through the town of Nerstrand and on into Iowa. It left St. Paul at 8:30 a.m. and took an hour or so to reach Nerstrand. It was just a mile hike west to the woods. The family who lived on the southwest corner of the crossroads halfway to the woods let us use their pump to get drinks of water. It wasn't until the early '50s that any paths or picnic facilities were put in. We brought our lunches, and carried vasculums to collect samples of all the plants that grew there. The collection was later donated to the Herbarium of the Botany Department.

We usually hiked back to town by 4:30 or 5 p.m. and bought quarts of ice cream at the little store. The clerk cut them in half, and we each ate a pint out of the carton. The train to St. Paul came at about 6 or 6:30 p.m. The fare was very reasonable. One trip it rained part of the day, and we were a bedraggled bunch when my mother picked us up at the depot in downtown St. Paul.

Illinois botanist to teach about grasses, sedges and rushes

by Scott A. Milburn

A growing number of plant identification courses offered around the country are not affiliated with academic institutions. These courses tend to be targeted towards an audience of wetland regulators and wetland consultants, and are usually taught by professors who have now transitioned into training professionals in such a manner.

One of the most prominent of these professors is Dr. Robert H. Mohlenbrock, who has retired from Southern Illinois University.

He will come to Minnesota in June to teach, in partnership with Jason Husveth and Scott Milburn, a class on the grasses, sedges, and rushes of Minnesota. For more information regarding the course, contact Jason or Scott at 651-433-4410.

Minnesota Native Plant Society

Member Registration

Name _____

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Phone (work) _____ Phone (home) _____ e-mail _____

New member? _____ Renewal? _____ Is this a gift? _____ From _____

$12	_____ Individual	$15	_____ Family (2 or more related persons, one address)
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$20	_____ Institution	$25	_____ Donor

Please complete the form above, check the appropriate membership category, and enclose your check made payable to the Minnesota Native Plant Society. Mail this form and your check to the Minnesota Native Plant Society, University of Minnesota, 250 Biological Sciences Center, 1445 Gortner Ave., St. Paul, MN 55108

Minnesota Native Plant Society
University of Minnesota
250 Biological Sciences Center
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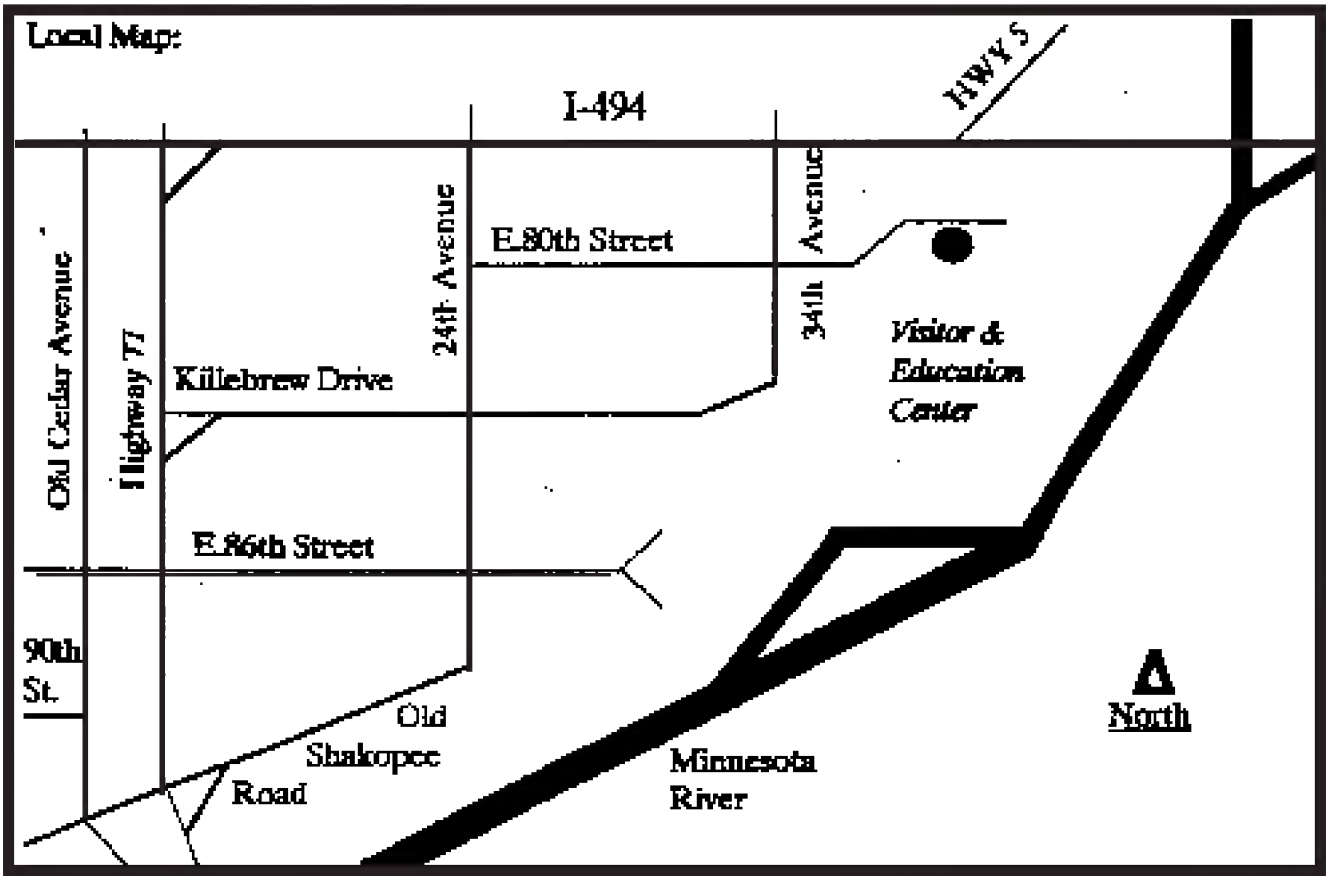
Spring 2004 Issue



Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

Volume 23 Number 4 **Summer 2004**

Monthly meetings

Minnesota Valley National Wildlife Refuge
Visitor Center, 3815 East 80th St.
Bloomington, MN 55425-1600
952-854-5900

6:30 p.m. — Building east door opens
6:30 p.m. — Refreshments, information, Room A
7 – 9 p.m — Program, society business
7:30 p.m. — Building door is locked
9:30 p.m. — Building closes

Programs

The MNPS meets the first Thursday in October, November, December, February, March, April, May, and June. Check the Web site for more program information.

Oct. 7: "Use of Native Plants in Stream Bank Stabilization," by Greg Thompson, Anoka County Conservation District. **Plant-of-the-Month:** To be announced.

Nov. 4: "Biological Control of Invasive Plants in Minnesota," by Luke Sinner, DNR Coordinator for Purple Loosestrife Program. **Seed exchange.**

Dec. 2: To be announced.

Membership form is inside

The MNPS membership year is from Oct.1 to Sept. 30. To join, or to renew your membership and ensure you continue receiving this newletter, clip or copy the form on page 7, complete it, and mail it, with your check to the address shown.

MNPS Web site

http://www.stolaf.edu/depts/biology/mnps
e-mail: MNPS@HotPOP.com

MNPS Listserve

Send a message that includes the word "subscribe" or "unsubscribe" and your name in the body of the message to:
mn-natpl-request@stolaf.edu

MNPS Adopts Grey Cloud Dunes SNA

by Karen Schik

According to the Minnesota Native Plant Society bylaws, the purpose of the organization includes " Preservation of special plants, plant communities, and scientific and natural areas." It is in keeping with this mission, therefore, that the board of directors has decided to become actively involved with management and preservation of Scientific and Natural Areas (SNAs), which are owned and managed by the Minnesota Department of Natural Resources (DNR). The board chose to focus on Grey Cloud Dunes SNA in Cottage Grove and is hopeful that many members will choose to participate in future management activities that will be scheduled there. We hope to demonstrate our commitment as an organization to the preservation of these areas.

Grey Cloud Dunes SNA is rare gem of natural areas in the Twin Cities metropolitan area. The primary habitat of the 220-acre piece is sand barrens dry prairie. The prairie occupies two river terraces, about 40 feet and 110 feet above the river, which were created nearly 10,000 years ago by sandy deposits of the Glacial River Warren. Dry prairies are much less common in Minnesota than mesic, tallgrass prairies, which are familiar to most people. Dry prairies have a unique assemblage of plant and animal species associated with them. Grey Cloud Dunes, the largest remnant dry prairie in the Twin Cities, is an excellent example of this plant community type and harbors five rare plant species (seabeach needle grass, Illinois tick trefoil, long-bearded hawkweed, Louisiana broomrape, and Hill's thistle). Donated to the DNR by Ashland Oil Company in the late 1990s, this site is a wonderful asset to the people of the state.

As with all natural areas, Grey Cloud Dunes needs active management to retain its character and composition. The MNPS Board of Directors became interested in working with the SNA program not only because it is in keeping with the mission of the organization, but also because the SNAs are in dire need of help at this time. State budget cuts have seriously impaired the ability of the SNA program to keep up with all the management needed at its properties. SNAs are showcases of the presettlement condition of native plant communities and are vital to the preservation of our natural resources. Unlike state parks, which are highly developed with trails, buildings and other

Continued on page 6

New officers, board members assume duties

A new vice president was elected, and new board members were welcomed at the June 24 meeting of the MNPS Board of Directors.

Jason Husveth was re-elected MNPS president, and Scott Milburn was elected vice president. Linda Huhn did not wish to continue as vice president, but she will continue as program chair. Karen Schik, who has been sharing secretarial duties with Joel Dunnette, now has full responsibilities for that position. David Johnson was re-elected treasurer and also elected to the board. He will serve the final year of the term of Janet Larson, who resigned.

New board members, who were elected at the March general membership meeting, are Ron Huber and Ken Arndt. Jason Husveth was re-elected to the board. Their terms will expire in 2007. Terms of continuing board members Dianne Plunkett Latham, Shirley Mah Kooyman and Scott Milburn expire in 2006. Terms of Karen Schik, Doug Mensing and David Johnson expire in 2005. Chuck and Ellen Peck have volunteered to mail the information packets to new members. They already mail the newsletters.

Other actions by the board included making Illinois Botanist Robert H. Mohlenbrock and his wife honorary members, deciding to form a liaison with the DNR to assist with the Grey Cloud Dunes SNA, and agreeing to assist in staffing the Minnesota Horticultural Society's educational exhibit at the Minnesota State Fair. That exhibit will feature native plants.

Web site links compiled

Hundreds of links to Web sites about invasives and other environmental topics are now linked on the Invasive Plants of Wisconsin Web site at: http://ipaw.org/klinks.asp The 553 links, compiled by Kelly Kearns, are filterable by major category at this time. Marsha Vomastic, IPWA webmaker, plans to enhance the search capabilities and refine the categorization in the future.

Minnesota Native Plant Society's purpose

(Abbreviated from the bylaws)

This organization is exclusively organized and operated for educational and scientific purposes, including the following:

1. Conservation of all native plants.
2. Continuing education of all members in the plant sciences.
3. Education of the public regarding environmental protection of plant life.
4. Encouragement of research and publications on plants native to Minnesota.
5. Study of legislation on Minnesota flora, vegetation and ecosystems.
6. Preservation of special plants, plant communities and scientific and natural areas.
7. Cooperation in programs concerned with the ecology of natural resources and scenic features.
8. Fellowship with all persons interested in native plants through meetings, lectures, workshops and field trips.

MNPS Board of Directors

President: Jason Husveth, Critical Connections Ecological Services Inc., 14758 Ostlund Trail N., Marine on St. Croix, MN; 651-247-0474; cciecology@att.net

Vice-President: Scott Milburn,72 St. Albans St. N., St. Paul, MN 55419; 612-310-6260; smilburn@ccesinc.com

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Shirley Mah Kooyman, 4520 Terraceview Lane N., Plymouth, MN 55446; 952-443-1419 (w), 763-559-3114 (h); shirley@arboretum.umn.edu

Dianne Plunkett Latham, 7013 Comanche Court, Edina, MN 55439-1004; 952-941-3542; plunkettdi@mn.rr.com

Douglas Mensing, 5814 Grand Ave. S., Minneapolis, MN 55419; 612-926-8637 (H); dougm@appliedeco.com

Program Chair: Linda Huhn, 2553 Dupont Ave. S., Minneapolis, MN 55405; 612-374-1435.

Listserv Coordinator: **Charles Umbanhowar**, ceumb@stolaf.edu

***Minnesota Plant Press* editor: Gerry Drewry,** 24090 Northfield Blvd., Hampton, MN 55031; phone, 651-463-8006; fax, 651-463-7086; gdrewry@infionline.net

Technical or membership inquiries: MNPS@HotPOP.com

Three groups win 'Think Native' grants of money, plants or seeds

by Dianne Plunkett Latham, Chair, Think Native Committee

The MNPS Think Native grant program was revised in 2004. Instead of making grants to individuals, the grants are now given to organizations for planting native plant gardens in public places.

We were pleased to receive 11 applications for our Think Native grant this year. All were outstanding, and we wished that we had enough funding to award a $200 grant to each. Unfortunately, we had but one monetary grant to give. So many applicants were outstanding, however, that we endeavored to find other ways to help them fill their native plant gardens.

In addition to awarding one $200 grant, we made a second grant of the native plants remaining from the June 3, 2004 plant sale. We made a third grant of the seeds remaining after the November seed exchange. The grant selection committee, which met on May 6, consisted of Dianne Plunkett Latham, Dave Crawford, Shirley Mah Kooyman and Karen Schik, with Linda Huhn participating via e-mail. It is with great pleasure that we announce the following winners:

Wright County Humane Society

Eva Forcier applied on behalf of the Wright County Humane Society for a memorial garden at the Humane Society, 4375 Hwy. 55 S.E., Buffalo, and was awarded the $200 grant.

Bassett's Creek

Greg Lecker applied on behalf of the Bryn Mawr Neighborhood Association and the Bryn Mawr Garden Club for the restoration project at Bassett's Creek on Glenwood Ave. between Vincent and Thomas Avenues N. in Minneapolis. Buckthorn has been removed, and plantings of native plants have begun. They were awarded a grant of plants from the June 3 MNPS plant sale. Greg Lecker, Karen Soderberg and Stephanie Brody picked up a dozen or more flats of native plants after the sale and had them all planted by the end of the following weekend!

Century College

Ginny Coyle applied on behalf of the Century College (White Bear Lake) horticulture program, which will develop native plantings on their campus. Century College offers a two-year degree program in horticulture. They have collected seed from "Jim's Prairie" in Maplewood and plan to coordinate their project with Joy Cedarleaf, biology instructor in Field Biology and Restoration Ecology.

Century College has propagation greenhouses where they can grow seeds for their use and to share with other organizations. They would appreciate a MNPS speaker for their horticulture class on the use of native plants in landscaping. Anyone interested should contact Ginny Coyle at 651-773-1726, ext. 2, or G.Coyle@Century.mnscu.edu.

Ginny Coyle responded: "Thank you for the gift of the seeds. We will put them to good use. A visit to the wildlife refuge and possibly attending the (November) meeting would be a great field trip for the class, which is Biology of Horticultural Crops." This group was awarded the grant of seeds from the Nov. 4, 2004 seed exchange.

Outdoor plant sale is successful

by Gerry Drewry

This year's plant sale, which was held outdoors, was a success logistically, socially and financially.

The donated plants were arranged on the low walls outside of the Minnesota National Wildlife Refuge entrance. We had an excellent variety of plants. There were some outstanding specimens for the silent auction, including two Goldie's ferns donated by Tom Bittinger.

There was much more room for members to inspect the plants and to visit with each other than at the previous sales inside the building. In addition, there were no tables to move, and clean-up was simple.

The sale enriched the MNPS treasury by $879 — the second highest total since we started the sales.

Proceeds for the last six sales were: 1999, $593.35; 2000, $424.00; 2001, $360.50; 2002, $454.75; 2003, $911.00; 2004, $879.

The weather was perfect, so we didn't need the tent that Ken Arndt brought for Cashiers David and Susan Johnson to use in case of rain. Plant Sale Chairs Dave Crawford and Gerry Drewry thank the many volunteers who helped before, during and after the sale. They plan to repeat the outdoor format next year.

Organizations' plant sales must follow new state rules

by Dianne Plunkett Latham

On July 1, 2003, amendments to Nursery Hobbyist Sales (Minn. Statutes 18H.06) and to the Conservation of Wildflowers (Minn. Statutes 18H.18) Acts that were passed by the Minnesota Legislature took effect. These amendments affect plant sales by garden clubs and organizations such as the Minnesota Native Plant Society.

Wildflowers sold at MNPS plant sales are covered under the statute for nursery hobbyist sales (see Minn. Statute 18H.06, Subd. 2) because wildflowers fall under the Nursery Stock definition (see Minn. Statutes 18H.02, Subd. 20) of "trees, shrubs, vines, perennials, biennials, grafts, cuttings and buds that may be sold for propagation, whether cultivated or wild, and all viable parts of these plants."

A nursery hobbyist organization or individual is exempt from the requirement of obtaining a nursery stock dealer certificate if the plants were grown in Minnesota, intended for planting in Minnesota, and the gross sales of all nursery stock in a calendar year is not more than $2,000. At the Minnesota Department of Agriculture's (MDA) discretion, the MDA may prescribe the conditions of the nursery hobbyist sales and may conduct routine inspections of hobbyist nursery stock offered for sale.

Organizations such as the MNPS and garden clubs sometimes have members who live out-of-state, typically in neighboring states. Members' plants that are grown out-of-state cannot be sold at a Minnesota club's plant sale under the above exemption. This is because the objective of the legislation is to prevent plant diseases and pests from entering Minnesota. Such plants grown out-of-state must be certified by the Department of Agriculture in their state of origin before they can be sold in Minnesota. Minnesota has reciprocity with certification in all of the other United States. Uncertified nursery stock raised out-of-state cannot be sold at MNPS plant sales.

Certification requirements do not apply to annuals, bulbs, tubers, vegetable plants and ornamental indoor plants among others (see 18H.02 Subd. 20 for complete list). These categories of plants may be grown by Minnesota or out-of-state members and sold at a Minnesota organization's plant sale without need of any certification.

Under the Conservation of Certain Wildflowers (Minn. Statutes 18H.18), "No person shall distribute the state flower *(Cypripedium reginae)*, or any species of lady slipper *(Cypripedieae)*, any member of the orchid family, any gentian *(Gentiana)*, arbutus *(Epigaea repens)*, lilies *(Lilium)*, coneflowers *(Echinacea)*, bloodroot *(Sanguinaria canadensis)*, mayapple *(Podophyllum peltatum)*, any species of trillium, or lotus *(Nelumbo lutea)*, which have been collected in any manner from any public or private property without the written permission of the property owner and written authorization from the commissioner."

Note that as of July 1, 2003, bloodroot and mayapple have been added to this act. An exception is made in the statute for wildflowers "growing naturally, collected and cultivated on the collector's property...."

Under MNPS policy, members may NOT collect plants from the wild for purposes of the MNPS sale, whether they are covered by this act or not. If a wildflower covered by this act has been grown on a member's private property, it can be sold at the MNPS sale, whether covered by this act or not, but the name of the private grower must be clearly indicated on the tag that goes with the plant, so that if any question arises as to a controlled plant's origin, the grower can be contacted for verification.

During the fall of 2004, MDA and trade organizations will begin discussions on amendments to the nursery laws. Anyone wanting to participate should contact Dianne Plunkett Latham at 952-941-3542 for notification of these meetings.

County boards can veto designation of new SNAs

The Minnesota DNR must now obtain county board approval before designating a new Scientific and Natural Area. The amendment restricting DNR action was sponsored by Rep. David Dill, DFl, Crane Lake, and passed by the 2004 Legislature. The law now allows a county to block DNR management of land that already belongs to the state, such as within a state forest or park, or land purchased for but not yet designated as an SNA.

Ferns have unusual life cycles

by Tom Bittinger, proprietor, Midwest Native Ferns, Owatonna. This is an abstract of his June 3, 2004 talk.

Ferns are interesting plants with a life cycle that is somewhat different from seed plants. The fern life cycle includes two separate, independent plants that are dissimilar in form and function.

One plant, the sporophyte, is the plant we are familiar with which is commonly seen in the wild and in our gardens. This plant produces dust-like spores, usually on the underside of the leaves (fronds).

When the spores germinate and grow, they actually produce a different type of plant altogether. This alternate generation plant is called a gametophyte, and it is usually only a few millimeters across, one to a few cells thick, and usually lives for a relatively short time. It is in these little structures that the sexual part of the life cycle takes place, with the production and fusion of gametes, and from which the new (sporophyte) plant grows.

Ferns (like many flowering plants) also exhibit many interesting methods of asexual (vegetative) reproduction.

There are about 12,000 species of ferns that have been described worldwide. Although most are found in the tropics, Minnesota is home to about 75 different species of ferns. A few examples of Minnesota's native ferns are:

Bulblet fern (*Cystopteris bulbifera*) — A fern with an interesting ability to propagate itself vegetatively. The underside of the long, narrow fronds produce small, pea-like bulbs that fall off to germinate and quickly produce new plants. The pale green fronds can reach over three feet in length, but are rarely more than four inches in width at the base. Found on damp rocks, cliffs, ditches, and even in rocky woods, these ferns often form explosions of long, arching fronds. The bulblet prefers slightly basic soil, but is not particularly fussy when it comes to soil conditions.

Smooth cliff brake (*Pellaea glabella*) — A small rock-loving fern that is fairly common throughout much of southeast Minnesota. It often has a blue or blue-grey tint and is able to grow in dryer and more exposed environments than most ferns.

Walking fern (*Asplenium rhizophillum*) — One of the most interesting of Minnesota's ferns. The shiny leaves of the walking fern have a heart-shaped base and a long, slender tapering tip. Small plantlets will form at the tips of the leaves, taking root and giving this fern a unique "walking" method of asexual propagation. Scattered, oblong sori on the underside of the leaves facilitate reproduction through spores.

The walking fern is found in the southeastern corner of Minnesota in damp, shady places. It usually grows on mossy, limestone rocks, often covering them with large, tangled, mat-like colonies due to its efficient method of vegetative propagation.

Goldie's fern (*Dryopteris goldiana*) — The giant of our wood ferns, growing three to five feet tall. Long, scaly, upright stalks support gently arching fronds in a vase-like arrangement. The broad fronds remain quite wide toward the tip, where they abruptly narrow to a point. The margins of the pinnae of young fronds are lighter green or, as they are sometimes described, "golden." (The species name, however, refers to a botanist, John Goldie, not to coloration.) This subtle shading can give this fern a two-toned appearance.

Goldie's fern is fairly rare in the wild in Minnesota. It is found in cool, moist woods and shady ravines.

Northern maidenhair (*Adiantum pedatum*) — One of Minnesota's most common ferns and also one of its most beautiful. This delicate woodland inhabitant has a unique form, which gives it a beautiful, lacy appearance.

The stipe is dark, a brownish purple to almost black, branching off into two arching rachises. The pinnae emerge from the inside of each of the two branches, giving the fronds a fan-like appearance.

The maidenhair spreads slowly, so controlling its spread is no trouble. It is beautiful as an individual specimen, or, as often found in rich, shady woods, a large colony. The fronds often orient themselves parallel to the ground, making large colonies appear as a green, lacy blanket floating inches above the forest floor.

Tom Bittinger sells spore-grown ferns and other shade plants grown from seed. For more information, contact him at 507-451-0190 or bittinger@ll.net, or write to Midwest Native Ferns, 7220 SW 37th Ave., Owatonna, MN 55060.

Grey Cloud Dunes SNA

continued from page 1

facilities to allow easy access and recreational use, development at SNAs is kept to a minimum so that there is very little disturbance and the area can more closely resemble its historic condition. These sites are real treasures and are crucial for researchers and students striving to learn about these systems.

The first scheduled activity at Grey Cloud Dunes will be pulling knapweed on July 17. For details please visit the SNA website at: http://www.dnr.state.mn.us/volunteering/sna/index.html, then click on the Newsletter. All future activities will be posted on the SNA website and will also be sent to the MNPS listserve (mn-natpl@stolaf.edu). For more information, contact Karen Schik at 651-222-2193 ext 15.

Cedar Lake Park Walk is Aug. 28

Cedar Lake Park Association and the Minnesota Native Plant Society are sponsoring a Native Landscapes Walk in Cedar Lake Park Saturday, Aug. 28, from 9:30 to 11:30 a.m. Keith Prussing, president of Cedar Lake Park Association, invites everyone to experience the nine-year-old prairie restoration. The evolving landscapes include oak woodland, maple basswood, emergent lakeshore and marsh. Prussing will be the guide on this easy walk. Meet at 9:30 a.m. at 21st St. W. and Upton Ave. S., Minneapolis. Participants must sign up in advance by contacting info@cedarlakepark.org or calling (612) 377-9522.

'How-to' for small prairies

Going Native: A Prairie Restoration Handbook for Minnesota Landowners is available from the Minnesota DNR. The book tells how to establish native prairie plants on plots of one to 20 acres. It is available at DNR offices and online at www.dnr.state.mn.us/prairierestoration/index.html

Plant Lore

by Thor Kommedahl

What is virgin's bower?

Virgin's bower is *Clematis virginiana*, a perennial vine in the buttercup family that is native to Minnesota. It is one of only two native species growing in Minnesota.

What do these names mean?

Clematis is the Greek name for climbing plants, and *virginiana* means from Virginia. Virgin's bower refers to the kind of shelter or covered place in a garden made with vines or branches twined together, presumably appropriate for a lady. Another name is old-man's-beard, for the long, feathery styles.

Where does *Clematis virginiana* grow?

The more than 200 species of *Clematis* grow in northern parts of the world, and about 20 species are native to North America. In Minnesota, this species is seen along riverbanks, along the north shore of Lake Superior, and sometimes in hedges and thickets.

What do the plants look like?

This trailing vine can climb as much as 15 feet to cover other plants, creating a shaded shelter or bower. It supports itself by using its long petioles. The leaves are three-parted, sharply toothed or lobed, opposite, and about 2-3 inches long. The stems can be somewhat woody, even with bark. Both petals and sepals are white. The fruits (achenes) are attached to a feathery tail to account for the name old-man's-beard.

Has the plant any medicinal uses?

Clematis is not a drug of commerce; however, a liniment was once prepared and used for treatment for skin eruptions and itching. American Indians made an extract to treat cuts and sores. When it is applied fresh to skin, it can cause blistering and if taken internally is corrosive. Drying or boiling destroys poisonous properties. Further research is needed to determine its medicinal value.

Does it have any other economic applications?

Because they hybridize easily and have showy blossoms, many horticultural varieties have been developed for growing in gardens, especially in partial shade.

Invasive Species Advisory Council

by Esther McLaughlin

The April 20 meeting of the Minnesota Invasive Species Advisory Council (MISAC) dealt with many serious issues facing our state and its native fauna and flora.

MNPS is one of only a few non-commercial and non-governmental organizations on the council. It will be good for us and for MISAC to continue our involvement. Several other MNPS members besides me volunteer to attend meetings.

One report told of finding Sudden Oak Death (SOD) in nursery stock from a large wholesale company in California that shipped live material to 39 states before the disease was found. Minnesota Department of Agriculture (MDA) will be tightening its requirements for inspection of material from California.

Of particular interest is development of a geographic data base of invasive organism sightings and identifications for the entire state. A cooperative effort by MDA and the Minnesota DNR (the work of Luke Skinner, Peter Dziuk, and Jeff Siira, among others), it will eventually be web-based and searchable by species or county. If you come across a patch or an individual of an invasive in a place you never saw it before, you can e-mail the information to Jeff Siira (jeff.siira@state.mn.us) at MDA. Later, they expect to have a web-based mechanism to add such records.

State Fair volunteers are needed

by Linda Huhn

Minnesota Native Plant Society members can receive a free pass to the Minnesota State Fair for any day they volunteer for a four-hour shift at the Minnesota State Horticultural Society's educational display on native plants. This is an opportunity for MNPS members to help fair visitors learn about native plants, and also to pass out MNPS brochures to visitors who request information.

In addition to using native plants as a theme for its fair display, the Horticultural Society has a feature article entitled *"The Return of the Native/The wild prairies of yesteryear find new life in modern landscapes,"* in the July/August issue of its magazine, *Northern Gardener.*

The educational display at the State Fair will be designed by Prairie Restorations, Inc., which is also donating the plant material. The display area will be located in the Southwest Wing, across the aisle from the Horticultural Society retail booth. All that is required of volunteers is to greet passers-by and offer to answer questions.

The fair is Aug. 26 through Sept. 6. Three shifts of volunteers are scheduled for the following times on each day: 8:45 a.m. – 1 p.m.; 12:45 p.m. – 5 p.m.; and 4:45 p.m. – 9 p.m.

Volunteers may take a 15- to 20-minute break during any four-hour shift. According to Vickie Winge, publisher of *Northern Gardener*, the priority dates to be filled are Aug. 29, Sept. 3, 4, 5, and 6, with most weekday traffic between 9 a.m. and 5 p.m.

Please call Linda Huhn of MNPS at 612-374-1435 by July 21 to sign up for shifts. This is a great opportunity to educate the public about native plants (fulfilling our purpose) and about the Minnesota Native Plant Society, to have some fun helping the Horticultural Society, and to get free one-day admission to the fair.

Minnesota Native Plant Society

Member Registration

Name _____

Address _____

_____

City _____ **State** _____ **Zip** _____

Phone (work) _____ **(home)** _____

E-Mail _____

Membership category (New _____ Renewal _____)

$15 Individual
$15 Family (2 or more related persons at same address)
$8 Student (full time)
$8 Senior (62 or over or retired)
$20 Institution
$25 Donor

Please fill in the form above and check the appropriate membership category. Your check should be made payable to the Minnesota Native Plant Society. Mail the completed form and your check to the Minnesota Native Plant Society, University of Minnesota, 250 Biological Sciences Center, 1445 Gortner Ave., St. Paul, MN 55108.

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Summer 2004 Issue